

Claims

1 *Sub 27* 1. An assemblage of corn seeds having a mean saturate content of less than about  
2 7.0% by weight relative to the total fatty acid content of said seed.

1 2. The assemblage of corn seeds according to claim 1, wherein said mean saturate  
2 content is less than about 6.7% by weight.

1 3. The assemblage of corn seeds according to claim 1, wherein said mean saturate  
2 content is less than about 6.0% by weight.

1 *Sub 23* 4. The assemblage of corn seeds according to claim 1, said seeds being obtained  
2 from a plant or plants belonging to a corn line selected from the group consisting of LS0417,  
3 LS1498, LS288, or sublines produced therefrom.

1 5. The assemblage of corn seeds according to claim 4, wherein said seeds are  
2 obtained from a plant or plants belonging to the LS1498 corn line, or sublines produced  
3 therefrom.

1 6. A corn plant that produces seeds having a mean saturate content of less than about  
2 7.0% by weight relative to the total fatty acid content of said seeds.

1 7. The corn plant according to claim 6, wherein said plant displays a waxy  
2 phenotype.

1 8. The corn plant according to claim 6, wherein said plant is a hybrid.

1 9. The corn plant according to claim 8, wherein said hybrid displays a waxy  
2 phenotype.

1 *Sub 47* 10. The corn plant according to claim 6, wherein said corn plant belongs to a corn  
2 line selected from the group consisting of LS1498, LS288, and LS0417, or sublines produced  
3 therefrom.

1 11. The corn plant according to claim 10, wherein said corn plant belongs to the  
2 LS1498 corn line.

1 12. A commercially acceptable hybrid corn plant that produces seeds having a mean  
2 saturate content of less than about 7.0% by weight relative to the total fatty acid content of  
3 said seed, said seeds being the product of a cross between

- 4 (a) a first parent from a corn line that is true breeding for saturate content; and  
5 (b) a second parent from a second corn line.

1 13. A corn oil produced from the assemblage of seeds of claim 1, said oil having a  
2 mean saturate content of less than about 7.0% by weight relative to the total fatty acid  
3 content of said oil.

1 14. The corn oil according to claim 13, wherein the mean saturate content is less than  
2 about 6.7%.

1 15. The corn oil according to claim 14, wherein the mean saturate content is less than  
2 about 6.0%.

1 *Sub 45* 16. A method for producing low saturate corn material, comprising the steps of:  
2 (a) obtaining a plurality of corn seeds having a mean saturate content of less  
3 than about 7.0%;  
4 (b) growing out said plurality of corn seeds to obtain a population of corn  
5 plants;

(c) intermating plants comprising said population to produce first seeds;

(d) subjecting said first seeds to selection based on saturate content, such that a predetermined saturate percentage of said first seeds is retained and plants grown from said predetermined percentage of seeds are intermated to produce second seeds;

(e) with said second seeds obtained, repeating steps (b), (c), and (d) at least once, whereby plants producing seeds that have a mean saturate content of less than about 7.0% by weight are obtained.

17. A method for producing corn oil having a saturate content of less than about 7.0% comprising the steps of:

obtaining an assemblage of seeds having a mean saturate content of less than about 7.0%; and

extracting the oil from said seeds to yield corn oil having a saturate of less than about 7.0%.